## Apprenticeship Manitoba

Agricultural Equipment Technician NOA (2012) Subtask to Unit Comparison

	NOA Subtask	Manitoba Unit(s)
Task 1 – Performs safety-related functions.		
1.01		A2 Trada Safaty Awaranaaa
	Uses personal protective equipment (PPE) and safety equipment.	A2 Trade Safety Awareness
1.02	Maintains safe work environment.	A2 Trade Safety Awareness
Tack 2	Performs common work practices and the second se	d propoduros
2.01	Conducts operational tests.	A7 Braking Systems and Wheel-End Safety
2.01	Conducts operational tests.	
		B2 Starting and Charging Systems C1 Engines and Engine Support Systems II: Combustion
		Science/Emission Controls
		C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
		C4 HVAC Environmental Controls II
		C5 Hydraulics Service and Repair
		C6 Powertrains II: Agricultural Drivetrains
		D2 Electronics II: Precision Farming
		D3 Hydraulic Testing and Diagnostics
		D4 Hydrostatic Testing and Diagnostics
2.02	Maintains fluids, lubricants and	A9 Basic Hydraulic Systems
2.02	coolants.	B3 Engines and Engine Support Systems I
		C5 Hydraulics Service and Repair
2.03	Services filters.	A9 Basic Hydraulic Systems
2.00		B3 Engines and Engine Support Systems I
2.04	Maintains hoses, tubing and fittings.	A9 Basic Hydraulic Systems
2.05	Services bearings/bushings and seals.	A3 Tools and Equipment
2.06	Uses fasteners, sealing devices,	A3 Tools and Equipment
	adhesives and gaskets.	
2.07	Cleans components.	A3 Tools and Equipment
2.08	Verifies equipment and component	A7 Braking Systems and Wheel-End Safety
	repairs.	B2 Starting and Charging Systems
		C1 Engines and Engine Support Systems II: Combustion
		Science/Emission Controls
		C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
		C4 HVAC Environmental Controls II
		C5 Hydraulics Service and Repair
		C6 Powertrains II: Agricultural Drivetrains
		D2 Electronics II: Precision Farming
		D3 Hydraulic Testing and Diagnostics
		D4 Hydrostatic Testing and Diagnostics
2.09	Plans daily tasks.	A1 Learning About Work
		A4 Trade Communications, Documents and Computer Skills
0.40		D1 Journeyperson Trainer
2.10	Performs failure analysis.	A7 Braking Systems and Wheel-End Safety
		B2 Starting and Charging Systems
		C1 Engines and Engine Support Systems II: Combustion
		Science/Emission Controls
		C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
		C4 HVAC Environmental Controls II
		C5 Hydraulics Service and Repair

	NOA Subtask	Manitoba Unit(s)
		C6 Powertrains II: Agricultural Drivetrains
		D2 Electronics II: Precision Farming
		D3 Hydraulic Testing and Diagnostics
		D4 Hydrostatic Testing and Diagnostics
Task	3 – Uses and maintains tools and equipr	nent.
3.01	Maintains tools and equipment.	A3 Tools and Equipment
3.02	Uses hoisting, lifting and securing	A8 Hoisting and Lifting
	equipment.	
3.03	Uses computers diagnostics and	A4 Trade Communications, Documents and Computer Skills
	programming.	C1 Engines and Engine Support Systems II: Combustion
		Science/Emission Controls
		C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
		D2 Electronics II: Precision Farming
	4 – Diagnoses engine and engine suppo	
4.01	Diagnoses base engine.	A5 Engine Principles
		B3 Engines and Engine Support Systems I
4.02	Diagnoses lubrication system.	B3 Engines and Engine Support Systems I
4.03	Diagnoses cooling system.	B3 Engines and Engine Support Systems I
4.04	Diagnoses intake and exhaust system.	B3 Engines and Engine Support Systems I
4.05	Diagnoses fuel delivery system.	C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
4.06	Diagnoses engine management	C1 Engines and Engine Support Systems II: Combustion
	systems.	Science/Emission Controls
	5	C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
		D2 Electronics II: Precision Farming
4.07	Diagnoses emissions control systems.	C1 Engines and Engine Support Systems II: Combustion
1.07		Science/Emission Controls
Task	5 – Repairs engine and engine support s	ystems.
5.01	Repairs base engine.	A5 Engine Principles
		B3 Engines and Engine Support Systems I
5.02	Repairs lubrication system.	B3 Engines and Engine Support Systems I
5.03	Repairs cooling system.	B3 Engines and Engine Support Systems I
5.04	Repairs intake and exhaust system.	B3 Engines and Engine Support Systems I
5.05	Repairs fuel delivery system.	C2 Engines and Engine Support Systems III: Diesel Fuel
0.00		Systems
5.06	Repairs engine management systems.	C1 Engines and Engine Support Systems II: Combustion
0.00		Science/Emission Controls
		C2 Engines and Engine Support Systems III: Diesel Fuel
		Systems
		D2 Electronics II: Precision Farming
5.07	Repairs emissions control systems.	C1 Engines and Engine Support Systems II: Combustion
5.07	Repairs emissions control systems.	Science/Emission Controls
Task	6 – Diagnoses drive train.	
6.01	Diagnoses dry clutches.	B4 Powertrain Fundamentals
6.02	Diagnoses driveline systems and	B4 Powertrain Fundamentals
	components.	C6 Powertrains II: Agricultural Drivetrains
6.03	Diagnoses wet clutches, transmissions	B4 Powertrain Fundamentals
	•	
0.00	and dear cases	
	and gear cases. Diagnoses differentials and final drives.	C6 Powertrains II: Agricultural Drivetrains C6 Powertrains II: Agricultural Drivetrains
6.04	and gear cases. Diagnoses differentials and final drives.	C6 Powertrains II: Agricultural Drivetrains
6.04	Diagnoses differentials and final drives.	
6.04		

	NOA Subtask	Manitoba Unit(s)		
	components.	C6 Powertrains II: Agricultural Drivetrains		
7.03	Repairs wet clutches, transmissions	B4 Powertrain Fundamentals		
1.05	and gear cases.	C6 Powertrains II: Agricultural Drivetrains		
7.04	Repairs differentials and final drives.	C6 Powertrains II: Agricultural Drivetrains		
7.04	Repairs unerentiais and final drives.			
Task 8	B – Diagnoses hydraulic, hydrostatic and	nneumatic systems		
8.01		A9 Basic Hydraulic Systems		
0.01	Diagnoses hydraulic and hydrostatic	D3 Hydraulic Testing and Diagnostics		
	systems.	D4 Hydrostatic Testing and Diagnostics		
8.02	Diagnoses pneumatic systems.	A7 Braking Systems and Wheel-End Safety		
0.02				
Task 9	- Repairs hydraulic, hydrostatic and pr	neumatic systems.		
9.01		A9 Basic Hydraulic Systems		
	Repairs hydraulic and hydrostatic	D3 Hydraulic Testing and Diagnostics		
	systems.	D4 Hydrostatic Testing and Diagnostics		
9.02	Repairs pneumatic systems.	A7 Braking Systems and Wheel-End Safety		
Task 1	0 - Diagnoses electrical/electronic powe	er and control monitoring systems.		
10.01	Diagnoses electrical power and control	A6 Electrical Fundamentals		
	monitoring systems.	B2 Starting and Charging Systems		
10.02		B2 Starting and Charging Systems		
	Diagnoses electronic power and control	B5 Electronics I: Fundamentals		
	monitoring systems.	D2 Electronics II: Precision Farming		
Task 1	1 – Repairs electrical/electronic power a	and control monitoring systems.		
11.01	Repairs electrical power and control	A6 Electrical Fundamentals		
	monitoring systems.	B2 Starting and Charging Systems		
11.02	Panaira alastropia power and control	B2 Starting and Charging Systems		
	Repairs electronic power and control monitoring systems.	B5 Electronics I: Fundamentals		
		D2 Electronics II: Precision Farming		
	2 – Diagnoses steering and brake syste			
12.01	Diagnoses steering systems.	B6 Agricultural Equipment I: Fundamentals		
		D2 Electronics II: Precision Farming		
12.02	Diagnoses brake systems.	A7 Braking Systems and Wheel-End Safety		
	3 – Repairs steering and brake systems			
13.01	Repairs steering systems.	B6 Agricultural Equipment I: Fundamentals		
		D2 Electronics II: Precision Farming		
13.02	Repairs brake systems.	A7 Braking Systems and Wheel-End Safety		
Task 1	4 – Diagnoses suspension components			
14.01	Diagnoses wheels/tracks and track	A10 Frames, Suspensions, and Structural Components		
	frames.			
14.02	Diagnoses cushioning devices.	A10 Frames, Suspensions, and Structural Components		
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	5 – Repairs suspension components.			
15.01	Repairs wheels/tracks and track frames.	A10 Frames, Suspensions, and Structural Components		
15.02	Repairs cushioning devices.	A10 Frames, Suspensions, and Structural Components		
Tail				
	6 – Diagnoses structural components.	Add Framos Russansians, and Otrustural Operations		
16.01	Diagnoses frame components.	A10 Frames, Suspensions, and Structural Components		
16.02	Verifies condition of roll-over protective	D5 Cabs and Protective Structures		
40.00	structure (ROPS).	DE Oaka and Destactive Otwart and		
16.03	Diagnoses equipment body.	D5 Cabs and Protective Structures		
	7 – Repairs structural components.			
17.01	Repairs frame components.	A10 Frames, Suspensions, and Structural Components		
		A12 Welding I		

	NOA Subtask	Manitoba Unit(s)
		B1 Welding II
17.02	Replaces roll-over protective structure (ROPS).	D5 Cabs and Protective Structures
17.03	Repairs equipment body.	A12 Welding I B1 Welding II
		D5 Cabs and Protective Structures
Task 1	8 – Diagnoses climate control systems.	
18.01	Diagnoses heating and ventilation systems.	A11 HVAC and Environmental Controls I C4 HVAC and Environmental Controls II
18.02	Diagnoses air conditioning systems.	A11 HVAC and Environmental Controls I C4 HVAC and Environmental Controls II
Task 1	9 – Repairs climate control systems.	
19.01	Repairs heating and ventilation systems.	A11 HVAC and Environmental Controls I C4 HVAC and Environmental Controls II
19.02	Repairs air conditioning systems.	A11 HVAC and Environmental Controls I C4 HVAC and Environmental Controls II
	0 – Prepares agricultural equipment.	
20.01	Performs assembly and pre-delivery adjustments on agricultural equipment.	B6 Agricultural Equipment I: Fundamentals D2 Electronics II: Precision Farming
20.02	Installs agricultural equipment.	B6 Agricultural Equipment I: Fundamentals D2 Electronics II: Precision Farming
		D6 Agricultural Equipment II: Diagnostics
Task 2	∣ 1 – Diagnoses land preparation, tillage a	and seeding/planting implements.
21.01	Diagnoses land preparation and tillage	B6 Agricultural Equipment I: Fundamentals
21.02	implements. Diagnoses seeding and planting	D2 Electronics II: Precision Farming B6 Agricultural Equipment I: Fundamentals
21.02	implements.	D2 Electronics II: Precision Farming
		D6 Agricultural Equipment II: Diagnostics
Task 2	2 – Repairs land preparation, tillage and	seeding/planting implements.
22.01	Repairs land preparation and tillage	A12 Welding I
	implements.	B1 Welding II B6 Agricultural Equipment I: Fundamentals
00.00		D2 Electronics II: Precision Farming
22.02	Repairs seeding and planting implements.	B6 Agricultural Equipment I: Fundamentals D2 Electronics II: Precision Farming
		D6 Agricultural Equipment II: Diagnostics
Task 2	3 – Diagnoses harvesting, hay and fora	ge equipment.
23.01	Diagnoses cutting, conditioning,	B6 Agricultural Equipment I: Fundamentals
23.02	gathering and processing equipment. Diagnoses delivery equipment.	D2 Electronics II: Precision Farming B6 Agricultural Equipment I: Fundamentals
20.02		D2 Electronics II: Precision Farming
		D6 Agricultural Equipment II: Diagnostics
Task 2	4 – Repairs harvesting, hay and forage	equipment.
24.01	Repairs cutting, conditioning, gathering	A12 Welding I
	and processing equipment.	B1 Welding II B6 Agricultural Equipment I: Fundamentals
		D2 Electronics II: Precision Farming
24.02	Repairs delivery equipment.	A12 Welding I
		B1 Welding II B6 Agricultural Equipment I: Fundamentals
		D2 Electronics II: Precision Farming
		D6 Agricultural Equipment II: Diagnostics

	NOA Subtask	Manitoba Unit(s)		
Task 25 – Diagnoses application and irrigation equipment.				
25.01	Diagnoses application equipment.	B6 Agricultural Equipment I: Fundamentals		
		D2 Electronics II: Precision Farming		
25.02	Diagnoses irrigation equipment.	B6 Agricultural Equipment I: Fundamentals		
		D2 Electronics II: Precision Farming		
		D6 Agricultural Equipment II: Diagnostics		
Task 26 – Repairs application and irrigation equipment.				
26.01	Repairs application equipment.	A12 Welding I		
		B1 Welding II		
		B6 Agricultural Equipment I: Fundamentals		
		D2 Electronics II: Precision Farming		
26.02	Repairs irrigation equipment.	A12 Welding I		
		B1 Welding II		
		B6 Agricultural Equipment I: Fundamentals		
		D2 Electronics II: Precision Farming		
		D6 Agricultural Equipment II: Diagnostics		



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